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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,857	07/03/2001	Koji Takahashi	1232-4733	3532

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EXAMINER

HARRIS, TIA M

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,857

Applicant(s)

TAKAHASHI ET AL.

Examiner

Tia M Harris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-78 is/are pending in the application.
- 4a) Of the above claim(s) 1-8,32-44,49-76 and 78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14,16,18-25,27,30, 45,46,48 and 77 is/are rejected.
- 7) ☒ Claim(s) 15,17,26,28,29,31 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species VI (Figures 16 and 17) in Paper No. 6 is acknowledged. The traversal is on the ground(s) that all species of restricted claims are properly presented in the same application, undue diverse searching would not be required, and all claims should be examined together. This is not found persuasive because there are multiple embodiments claimed that do not require the specifics of each other and that would produce a burden for the Examiner to search the material in the diverse search areas. The requirement is still deemed proper and is therefore made FINAL.

Drawings

2. Figures 23 and 24 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 recites the limitation "said driver" in lines 1-2 of the claim. There is insufficient antecedent basis for this limitation in the claim. (Claim 11 depends from claim 9, and the adjuster is performing the driving in claim 9. It is unclear if Applicant is referring to the adjuster or to another driving means.)

5. Claim 18 recites the limitation "the *predetermined* relative state" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 9-12, 14, 18, 20-23, 25, 30, and 77 are rejected under 35 U.S.C. 102(e) as being anticipated by Kitaguchi et al (hereafter referred to as Kitaguchi) (US 6686954 B1).

(Claims 9 and 20) Kitaguchi discloses an image sensing system comprising an image-sensing element (9) for photoelectrically converting incoming light from an image sensing optical system, a memory (12) for storing information that pertains to a relative position between the image sensing element and the image sensing optical system, and an adjuster (18) for adjusting a position of the image sensing element, wherein the adjuster drives based on the information read out from the memory to adjust the relative position of the image sensing element with respect to the image sensing optical system (column 5, lines 21-44).

(Claims 10 and 21) Kitaguchi further discloses the adjuster comprises a driver for changing a tilt of the image-sensing element (column 5, lines 21-44; column 8, lines 34-50; see figure 4).

(Claims 11 and 22) As best understood by the language of the claim, Kitaguchi further discloses the driver changes a position of the image-sensing element (column 5, lines 21-44).

(Claims 12 and 23) Kitaguchi further discloses the memory stores an adjustment amount of the image-sensing element from a predetermined position (reference position), and

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the adjuster adjusts in accordance with the adjustment amount stored in the memory (column 5, lines 8-44).

(Claims 14 and 25) Kitaguchi further discloses the memory stores the adjustment amount used to correct a tilt of the image-sensing element with respect to a reference line (column 4, line 60 – column 5, line 44).

(Claims 18 and 30) As best understood by the language of the claim, Kitaguchi further discloses the relative state is a state in which an optical axis of the image sensing optical system is normal to a light-receiving surface of the image-sensing element (column 7, lines 2-12; see figures 3 and 4 (z-axis)).

(Claim 77) See the rejection of claim 9 above. Kitaguchi further discloses a computer program product comprising a computer usable medium having computer readable program code means embodied in the medium for controlling the image-sensing system (inherent since the camera is a digital camera and performs calculations), including a first computer readable program code means (microprocessor in memory (12); column 5, lines 11-31).

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 45-46 and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Imada (5771403).

(Claim 45) Imada discloses an image-sensing optical system, which is detachably attached to an image sensing apparatus having an image-sensing element (column 4, lines 60-63), comprising a plurality of lenses (focus lens and zoom lens) and a memory (101) that stores

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an adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane to have a predetermined relative state.

(Claim 46) Imada further discloses the predetermined relative state is a state in which the optical axis of the image sensing optical system is normal to the reference plane (column 7, lines 3-5; see figure 2).

(Claim 48) Imada further discloses the plurality of lenses includes a field angle adjustment lens (zoom lens driven by zoom lens drive system (104)) and the memory stores an adjustment amount for each of a plurality of field angles (column 5, lines 1-12, 21-30; column 6, lines 5-11, 34-39).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 13, 16, 19, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitaguchi in view of Imada (5771403).

(Claims 13 and 24) Kitaguchi discloses an image sensing system as discussed above, but does not specifically disclose the memory stores the adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane.

Imada discloses an image blur detection apparatus wherein an adjustment amount is determined to correct a tilt of an optical axis of an image sensing optical system with respect to a reference plane (column 3, lines 22-28; column 6, line 66 – column 7, line 8).

Imada teaches that the blur prevention can be performed by various methods including a shift in the optical system in which optical members are moved in a plane perpendicular to the

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optical axis or a means for moving a photographing surface (image sensor) in a plane perpendicular to the optical axis, and that the embodiments or their technical elements may be combined with each other as needed (column 6, line 66 – column 7, line 8). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include in the memory of the microprocessor of memory (12) disclosed by Kitaguchi the optical adjustment amount that is stored in the microprocessor (101) of Imada in order to adjust both the image sensing element and the optical system to prevent blur from occurring in a captured image.

(Claims 16 and 27) Imada further discloses the image sensing optical system comprises a field angle adjustment lens and a field angle manipulation unit for manipulating a field angle (zoom lens driven by zoom lens drive system (104)).

(Claim 19) Imada further discloses the image sensing optical lens is exchangeable (column 4, lines 60-63).

Allowable Subject Matter

12. Claims 15, 26, and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: the Examiner found no prior art cited in its entirety, nor based on the prior art found any motivation to combine references to teach, in combination with the other limitations of the base claims, the system comprising a temperature sensor, wherein the memory stores an adjustment amount of the image sensing element for each of a plurality of temperatures.

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14. Claims 17 and 28-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: the Examiner found no prior art cited in its entirety, nor based on the prior art found any motivation to combine references to teach, in combination with the other limitations of the base claims, an image sensing system, and a method of controlling the image sensing system, the image sensing system comprises an image sensing optical system, the image sensing optical system comprising a field angle adjustment lens and a field angle manipulation unit, wherein the memory stores an adjustment amount of the image sensing element from a predetermined position, which amount sets the image sensing optical system and the image sensing element in a predetermined relative state, for each of a plurality of field angles, and the adjuster adjusts on the basis of the adjustment amount stored in the memory.

16. Claim 31 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter: the Examiner found no prior art cited in its entirety, nor based on the prior art found any motivation to teach, in combination with the other limitations of the base claim, the image-sensing system has a first memory that stores an adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane, and a second memory that stores an adjustment amount used to correct a tilt of the image-sensing element with respect to a reference line, and upon the adjustment, the adjustment amounts are read out

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from the first and second memories, the readout adjustment amounts are merged, and adjustment is done using the merged adjustment amount.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tia M Harris whose telephone number is 703-305-4807. The examiner can normally be reached on M-F 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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6/1/04



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